TO DETERMINE LENGTH OF INLET TO INTERCEPT 100% OF GUTTER FLOW

ITEM	UNITS	DESCRIPTION	HOW DETERMINED
Q_a	c.f.s.	AMOUNT OF FLOW IN GUTTER ON ONE SIDE OF STREET.	HYDROLOGY STUDY OF AREA.
d	ft.	DEPTH OF FLOW AT FACE OF CURB.(NOT CONSIDERING INLET DEPRESSION)	SEE CVD-DR06 OR CVD-DR07 (INTERSECTION OF Q_a LINE AND GUTTER GRADE LINE WILL FALL BETWEEN d LINES. INTERPOLATE FOR VALUES.)
L_a	ft.	LENGTH OF INLET WHICH WILL INTERCEPT 100% OF Q_a AT GIVEN GUTTER GRADE.	CVD-DR06 AND CVD-DR07 (INTERSECTION OF Q_a LINE AND GUTTER GRADE LINE WILL FALL BETWEEN d LINES. INTERPOLATE FOR VALUES.)

TO DETERMINE LENGTH OF INLET TO INTERCEPT A PORTION OF GUTTER FLOW

(THIS METHOD TRIES DIFFERENT LENGTHS OF INLETS TO DETERMINE HOW MUCH FLOW WILL BE INTERCEPTED BY EACH LENGTH INLET AND HOW MUCH FLOW WILL CONTINUE PAST INLET. FIRST DETERMINE Q_a , d AND L_a AS ABOVE.)

ITEM	UNITS	DESCRIPTION	HOW DETERMINED
L	ft.	LENGTH OF PROPOSED INLET	SELECT TRIAL LENGTH
L/L_a		RATIO OF L TO L_a	DIVIDE L BY L_a
a	ft.	AMOUNT FLOW LINE OF GUTTER IS DEPRESSED AT INLET.	STD. DWG. OF INLET BEING CONSIDERED FOR USE.
a/d		RATIO OF a TO d	DIVIDE a BY d
Q	c.f.s.	FLOW INTERCEPTED BY INLET OF LENGTH L.	CVD-DR05 (INTERSECTION OF L/L_a LINE AND a/d LINE WILL FALL BETWEEN Q/Q_a LINE. INTERPOLATE FOR VALUES $Q = Q_a \times Q/Q_a$
Q_a-Q	c.f.s.	FLOW CONTINUING PAST INLET.	SUBTRACT Q FROM Q_a

NOTE:
CVD-DR06 OR CVD-DR07 MAY ALSO BE USED BEGINNING WITH A SELECTED Q TO DETERMINE L.

Revised:	Original approval date: 8-18-78	CITY OF CHULA VISTA
11-5-01 CM	Redrawn By: ARR Date: 7-26-95	PUBLIC WORKS DEPARTMENT
	Clifford Swanson	INLET DESIGN- LENGTH OF INLET
	CITY ENGINEER Date: 11-7-02	CVD-DR06